

# Notice of Allowability

Application No.

09/597,553

Examiner

MANSOUR M. SAID

Applicant(s)

KANG ET AL.

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## -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 10/24/06.
2. ☒ The allowed claim(s) is/are 1-16, 18-19, 21, 24-25 and 29-34; and renumbered as 1-27.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All b) ☐ Some\* c) ☐ None of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
  - \* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

### Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material

5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

  
RICHARD HJERPE

SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600

## **DETAILED ACTION**

### **EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Ntiros, Sam on January 19, 2007.

2. The application has been amended as follows.

#### **IN THE CLAIMS**

**Please cancel claims 23 and 26-27.**

**In claim 1, line 5, after "a first auxiliary electrode formed at" please delete the repeated phrase "at".**

**Claim 18, (Current Amended) A discharge cell, comprising:**

**a first electrode;**

**a second electrode that crosses the first electrode;**

**a dielectric layer positioned between the first and second electrode; ~~and~~**

**at least one auxiliary electrode directly connected to the first electrode and on substantially a same plane as the second electrode via the dielectric layer; and**

**a radio frequency electrode poisoned and configured to cooperate with one of the first and second electrodes to cause a radio frequency discharge.**

**Claim 25, (Currently Amended) A plasma display panel, comprising:**

**a first substrate;**

**a second substrate;**

**a plurality of discharge cells formed between the first and second substrate;**

**a plurality of first electrodes formed on the second substrate in a first direction;**

**a plurality of second electrodes formed in a second direction so as to cross the plurality of first electrodes;**

**a plurality of third electrodes associated with each of the first electrodes, wherein**

**the plurality of third electrodes are directly connected to the plurality of first**

**electrodes and wherein each of the plurality of third electrodes has a predetermined**

**width and a predetermined length that runs in a direction substantially parallel to**

**the second direction; and a plurality of fourth electrodes associated with each of the**

**second electrodes, wherein each of the plurality of fourth electrodes is a radio**

**frequency electrode having has a predetermined width and predetermined length**

**that runs in a direction substantially parallel to the second direction.**

*Allowable Subject Matter*

3. Claims 1-16, 18-19, 21, 24-25 and 29-34 are allowed.

The following is an examiner's statement of reasons for allowance: Claims 1-16, 18-19, 21, 24-25 and 29-34 are allowed since certain key features of the claimed invention are not taught or fairly suggested by prior art. **In claims 1**, “a first auxiliary electrode formed at least one of the first or second electrode lines for each discharge cell, wherein the first auxiliary electrode is directly connected to at least one of the first or second electrodes lines”. **In claim 7**, forming a first auxiliary electrode directly connected to one of the first electrode lines having a desired distance there-between; coating a first dielectric material to cover the first auxiliary electrode and said of the first electrode lines; and formed a plurality of second electrode lines perpendicular to first electrode lines. **In claim 10**, a first auxiliary electrode directly connected to at least one of the scanning electrode or the address electrode for each discharge cell; a radio frequency signal driver for applying a radio frequency signal having a higher frequency than a predetermined alternating current voltage to the radio frequency electrode in each discharge cell; and a pulse signal driver for applying a scanning pulse and a data pulse having a frequency of the predetermined alternating current voltage to the scanning electrode and the address electrode. **In claim 15**, a radio frequency electrode, arranged in parallel to the second electrode, formed on a second substrate opposite to the first substrate, for causing a radio frequency discharge; and an auxiliary electrode directly connected to the first electrode formed on the substrate, and formed in parallel to and on substantially the same plane as the second electrode via the dielectric layer. **In claim 18**, at least on auxiliary electrode directly connected to the first electrode and on substantially a same plane as the second electrode via the dielectric layer; and a radio frequency electrode positioned and configured to cooperate with one of the first and second electrodes to cause a radio frequency discharge. **In claim 25**, a plurality of third electrodes associated with

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each of the first electrodes, wherein the plurality of third electrodes are directly connected to the plurality of first electrodes and wherein each of the plurality of third electrodes has a predetermined width and a predetermined length that runs in a direction substantially parallel to the second direction; and a plurality of fourth electrodes associated with each of the second electrodes, wherein each of the plurality of fourth electrodes is a radio frequency electrode having has a predetermined width and predetermined length that runs in a direction substantially parallel to the second direction. The closest prior art Park et al. (6,262,532 B1) teaches a plasma display comprising a first electrode, a second electrode, a third electrode and an auxiliary electrode that is connected directly to the electrodes furthermore park plasma display device is not a radio frequency plasma display panel, Yoo et al. (6,271,810) teach a plasma display panel that is adaptive for utilizing a radio frequency discharge, however, singularly or in combination with other prior art, fail to anticipate or render the above underlined limitations obvious.

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### *Conclusion*

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mansour M. Said whose telephone number is 571-272-7679. The examiner can normally be reached on Monday through Thursday from 8:30-6:00 P.M. The

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examiner can also be reached on alternate Friday from 8:30 a.m. to 5:00 p.m. EST. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard A. Hjerpe whose telephone number is 571-272-7681.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231


or faxed to: 571-273-8300 (for Technology Center 2600 only)

Hand-delivered responses should be brought to the Customer Service Window at the Randolph Building, 401, Dulany Street, Alexandria, VA 22314.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**Mansour M. Said**

1/19/07

  
**RICHARD HJERPE**  
SUPERVISOR, PATENT EXAMINER  
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